

Frequently Asked Questions

March 2019

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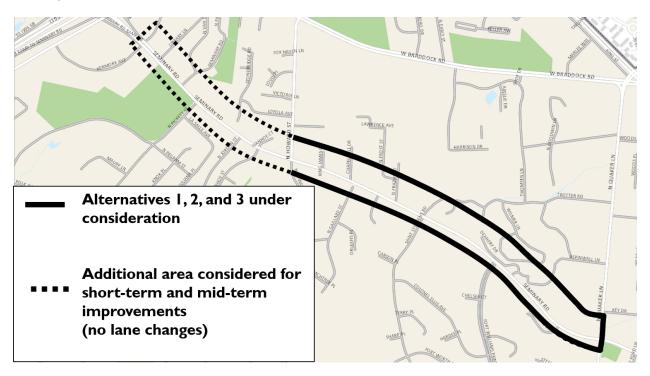
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Public Meeting #2 - March 25, 2019

What is the scope of the Seminary Road project?

The overall project includes Seminary Road from Kenmore Avenue to North Quaker Lane. Three different alternative options are being considered for Seminary Road between North Howard Street and North Quaker Lane. No lane changes are being considered between Kenmore Avenue and North Howard Street. See the graphic below which depicts the scope of the project.



Why is the City exploring changes on Seminary Road?

Seminary Road is on the City's repaving schedule for 2019. When streets are resurfaced, this provides an opportunity to explore potential improvements at a lower cost. In 2011, City Council adopted the Complete Streets Policy, which tasks the Department of Transportation & Environmental Services with incorporating Complete Streets improvements into routine street repaving whenever possible.

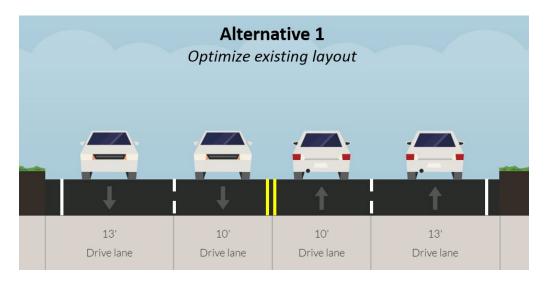
Why does the overall study area not extend past Kenmore Avenue? Why not further west?

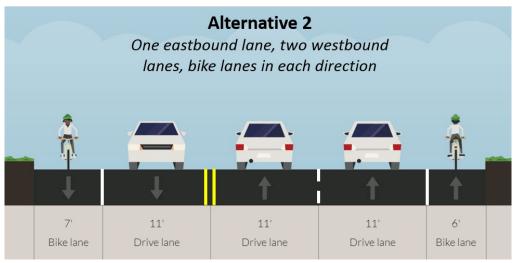
The project area aligns with the scheduled repaving area, which is Seminary Road from Kenmore Avenue to North Quaker Lane. For more information on the City's repaving schedule, visit the Public Works Services webpage.

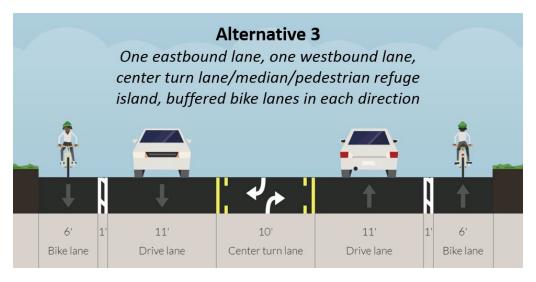
What changes are being considered for the Seminary Road project?

No lane changes are being considered west of North Howard Street. Along this section, staff will work with the community to identify other potential improvements, such as high-visibility crosswalks, widened sidewalks, and signal timing changes.

Three design alternatives are being considered for Seminary Road between North Howard Street and North Quaker Lane. These design alternatives are shown below:

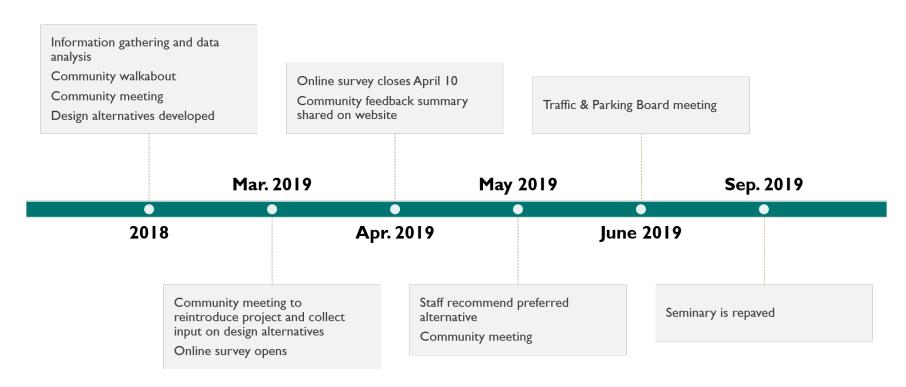






What is the timeline of this project?

The project timeline is shown below:



Does the scope of the project include things like sidewalks?

The project includes maintaining sidewalks, upgrades to curb ramps, and considering enhanced pedestrian crossings. However, complex additions or revisions may need to be implemented in a short-term condition to allow time, planning, and design to perform more complex engineering and coordination with adjacent property owners.

Are there other opportunities to do things beyond what is shown in presentation boards?

Yes! Staff have gone through a process of coming up with options and narrowing them down to the three shown here. With that said, please send us your ideas, staff welcomes new ideas for roadway improvements beyond what is shown in the presentation boards.

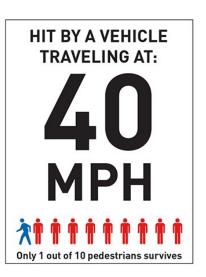
Seminary Road doesn't have as many crashes as other parts of the City. Why is the City concerned about safety here?

Throughout the public input process, staff have heard from numerous residents that Seminary Road does not feel safe, and many avoid walking or biking because of safety concerns. The safety improvements in the alternatives are proposed to avoid any future crashes and reduce the severity of those that may occur. While there have been no pedestrian and bicycle crashes in the past three years, all 22 of the crashes that occurred in the past 3 years in this segment (N Howard to N Quaker on Seminary Road) involved people driving. Driver safety is important to City staff along with the safety of all modes. All of the changes proposed in the alternatives are intended to make it safer for people driving as well as people walking and on a bicycle.

There is a <u>documented history of speeding</u> on the corridor and speed is the #1 factor in the occurrence and severity of crashes. The graphic below illustrates how vehicle speed affects the survivability of a crash for a person walking:







Additionally, the City has adopted a Vision Zero Policy, which aims to eliminate traffic fatalities and serious injuries in Alexandria by 2028. Industry guidance tells us that the best way to improve safety overall is not by focusing on hot spots of crashes, but by identifying common factors or intersection characteristics in crashes and applying treatments to address those problems across the transportation system.

A design similar to Alternative 3 was implemented on King Street between Chinquapin Drive and Janneys Lane a few years ago. What were the traffic impacts of that project?

In 2016, the City implemented a road diet similar to Alternative 3 on King Street between Chinquapin Drive and Janneys Lane. According to data collected before and after the project:

- Average vehicle speeds reduced by 18%
- Average annual number of crashes reduced 50%
- No traffic diversion was observed on side streets
- People driving experience less than 30 seconds of difference in travel time during the AM and PM rush hours

More information on the King Street project can be found here: https://www.alexandriava.gov/86423

Why is the City even considering a road diet as an alternative on Seminary Road?

The City gathered community input in 2018 and heard that while traffic congestion is a concern, residents are also concerned about:

- Speeding traffic
- Safe crossings
- Difficulty making left turns, and
- Difficulty pulling in and out of driveways

At the first public meeting, the majority of participants indicated that they liked:

- Pedestrian flashing beacons (Rectangular Rapid Flashing Beacons, or RRFBs)
- Planted median islands, which can double as refuge islands for people crossing the street
- Wide, buffered sidewalks
- Center two-way left-turn lanes

While enforcement can help address concerns about speeding, roadway design is a key determinant in whether or not people speed. In fact, many people speed and don't even realize it because it feels comfortable to do so on certain roadways. Road diets are a proven countermeasure endorsed by The Federal Highway Administration has demonstrated that road diets are effective in reducing speeds.

Planted median islands, left turn lanes, wider sidewalks, and pedestrian refuge islands are likely not possible on Seminary Road without repurposing some of the existing roadway space. While it may seem straightforward to add crosswalks without median islands or other additional safety treatments, <u>studies show</u> that adding crosswalks alone on high-volume, high-speed, multi-lane roads can actually increase crashes and crash severity. One common crash type that can often result in serious injury or death is the multiple threat crash, shown here.

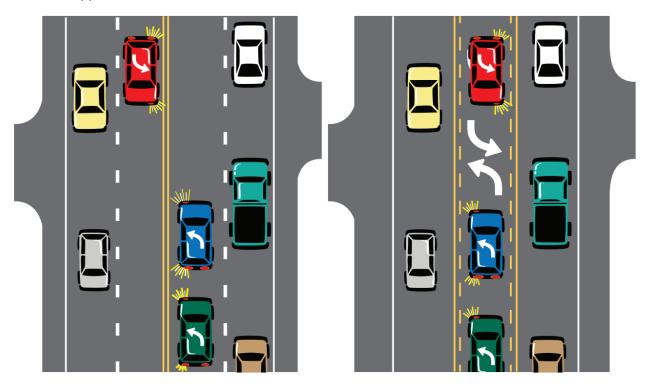
While staff recognize that traffic congestion is a concern, road diets can be a viable alternative in certain conditions, according to the Federal Highway Administration:

< 10,000 Average	10,000-15,000 ADT	15,000-20,000 ADT	>20,000 ADT		
Daily Traffic (ADT)					
Great candidate for Road Diets in most instances. Capacity will most likely not be affected.	Good candidate for Road Diets in many instances. Agencies should conduct intersection analysis and consider signal retiming to determine any effect on capacity.	Good candidate for Road Diets in some instances. Agencies should conduct a corridor analysis. Capacity may be affected at this volume depending on the "before" condition.	Agencies should complete a feasibility study to determine whether this is a good location for a Road Diet. There are several examples across the country where Road Diets have been successful		
		Seminary Road (from Quaker to Howard) 15,900-18,600 ADT	with ADTs as high as 26,000. Capacity may be affected at this volume.		

Won't reducing the number of travel lanes increase traffic congestion?

While it may seem counterintuitive, reducing travel lanes does not always lead to increased traffic congestion. Here's why:

 Four-lane undivided roadways often already function like three-lane roadways. This is because people driving often use the outside lanes to avoid traffic that is slowed or stopped in the inside lane to make a left turn. This is illustrated below:



 Additionally, road diet projects are often coordinated with signal timing changes to optimize the flow of the roadway and mitigate potential impacts to traffic.

What about BRAC? Is there parking garage still capped or will more cars come through Seminary Road looking to access BRAC?

Originally there was a cap on the number of parking spaces that could be opened for use, but that cap was lifted years ago, and the structure has been open for use over the past few years. Based on DOD's counts of parking for 2017, the average number of spaces occupied is approximately 2,700. There are about 3,500 spaces available to employees, but with their Transportation Demand Management Plan, they have highly-used shuttles in place that take people from the Pentagon to the BRAC facility. The AT2X is one other way that people use to get to BRAC, among others.

Are there any plans for expansion of the BRAC Facility to add future growth and traffic on Seminary Road?

No, DOD has no plans to expand the BRAC site at this time. Since their shuttles and other Transportation Demand Management program is doing well, both the City and DOD wish to continue its promotion and usage. BRAC's current total occupancy is approximately 5,600 employees. BRAC currently sees 3,300 or more employees on an average day shift with nearly 45% of them choosing other modes than driving alone (e.g. carpool, shuttle, public transit,

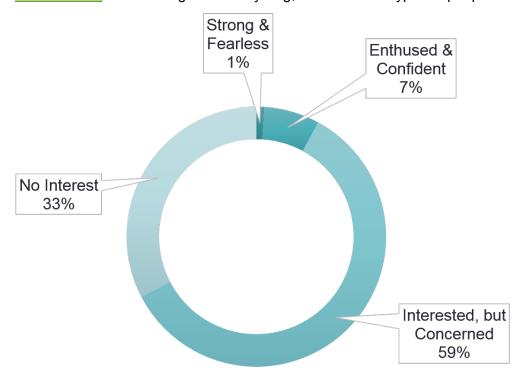
walking, biking, slugging, drop-offs or other methods). The other approximately 2,600 employees use a telework option, are at off site at meetings in other areas, or are not accessing the area for other reasons.

Can't the City implement improvements like signal changes and crossing upgrades with Alternative 1?

Signal improvements could be implemented with Alternative 1, but other improvements, such as tree-lined medians are likely not possible given the four-lane configuration. New pedestrian crossings may be possible, but would require significant safety measures, like new overhead signals, to ensure vehicles yield to people crossing the roadway. Improvements like these are intended to avoid the multiple threat crash that can occur when drivers in multiple lanes do not yield.

I never see people riding bikes on Seminary Road. Why would the City consider adding bike lanes?

Studies show that with regards to bicycling, there are four types of people:



Most people are generally interested in riding a bike, but many don't do so because of concerns about safety. Currently, Seminary Road is not considered a comfortable route for people biking because of the speed of traffic, volume of traffic, number of lanes, and lack of a separated facility to ride in. Most people feel comfortable riding a bike in a designated lane with some type of buffer or physical barrier in place.

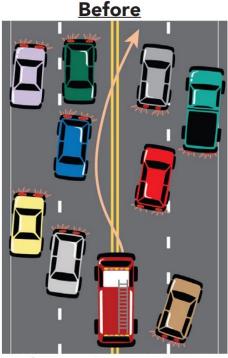
Bicycle network connectivity (or lack thereof) is another barrier to bicycling. It's difficult to ride a bike from point A to point B when comfortable facilities don't connect to each other. The City identified a proposed bicycle network through its Pedestrian & Bicycle Master Plan in 2016,

which aims to develop a better connected system over time. Bike lanes currently exist on Janneys Lane and King Street. The City also has state grant funding to build a shared-use path for people walking and biking on North Beauregard Street between Seminary Road and King Street. While it may seem out of place to consider bike lanes on Seminary Road, it's important to think about the big picture and how all the different projects come together to create a cohesive network.

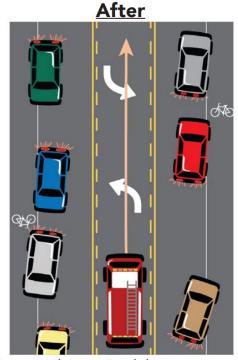
Won't a road diet (Alternatives 2 or 3) impact emergency response times? While it may seem counterintuitive, road diets do not increase response times for enforcement and emergency services. On the contrary, road diets can even improve response times by giving emergency vehicles a clear, predictable path forward through a center left turn lane.

Multi-lane undivided roads can be problematic for police and emergency responders, as drivers may not be aware of protocols for allowing emergency vehicles to pass. While drivers in the outside travel lane are typically able to pull over to the right edge, drivers in inside lanes often seem uncertain about where to go. Emergency responders may struggle to pass through traffic as they thread a path somewhere along the center of the roadway, leading to longer response times and increasing the opportunity for secondary incidents during response. In contrast, three-lane roadways provide clarity in the event of an emergency. Road diets can significantly improve response times by allowing emergency vehicles to bypass traffic by using the two-way left turn lane. Drivers in through lanes can remain in place, leaving the two-way left turn lane solely for emergency response vehicles.

The graphic below depicts the difference in emergency vehicle routing on a four-lane undivided roadway versus a two-lane roadway with a center turn lane:



A fire truck struggling to find a path.



An easily navigable two-way left-turn lane.

Would a road diet increase cut-through traffic on neighboring streets like North Jordan Street?

For the majority of road diets, the Average Daily Traffic (ADT) remains constant, indicating little to no diversion to neighboring side streets. Preliminary traffic analysis for the Seminary Road project has shown that while average queue lengths may be longer during the peak hour, the amount of delay remains comparable to existing conditions due to modified signal timing and thus should not encourage cut-through traffic.¹

Staff will closely monitor conditions on side streets after the project is completed (regardless of which alternative is selected) to evaluate impacts on neighboring streets. Data that was collected after the King Street road diet showed no traffic diversion onto key connector streets. In fact, traffic volumes actually decreased on side streets.

Won't narrowing travel lanes increase crashes?

Reducing the width of travel lanes to 10-11' does not negatively affect motor vehicle traffic safety or operations and has no measurable impact on roadway capacity. Narrowing lanes also has a proven traffic calming effect; visually narrowing the roadway often compels people driving to drive more slowly.² The existing lane widths on Seminary Road are approximately 11.5-12 feet. The City's Complete Streets Design Guidelines recommend 10- to 11-foot travel lanes.

Can't more enforcement fix the speeding problem on Seminary Road?

While enforcement is an important tool in reducing speeding, it is only part of the solution. Roadway design is a critical factor in determining how fast people will drive. Many people speed without even realizing it – they do it because the environment they are in feels comfortable to drive faster.

What is a leading pedestrian interval (LPI), and why is it being considered on Seminary Road?

A leading pedestrian interval typically gives pedestrians a 3-7 second head start when entering an intersection. Essentially, it means people walking get the WALK signal before parallel traffic gets the green light. This is a proven safety treatment that enhances visibility of pedestrians in the intersection and reinforces their right-of-way over turning vehicles.

What is the process for making a final decision on Seminary Road?

In May, staff will recommend a preferred alternative. This decision will be based on a variety of factors, including community input, existing plans and policies, and traffic analysis. Staff will present the preferred alternative to the community in May and gather additional input on the design.

If the staff recommendation involves substantial changes to the road design on Seminary Road (i.e. removing or repurposing travel lanes), it must be considered by the <u>Traffic & Parking Board</u> at a public meeting.

¹ https://safety.fhwa.dot.gov/road_diets/resources/fhwasa16074/

² https://www.fhwa.dot.gov/publications/research/safety/humanfac/04082/

Public Meeting #1 – May 29, 2018 (Project Area was Kenmore to Quaker Lane)

What did similar work do to King Street? TREDS data and map shows that Seminary is safe. King Street data shows that 7 accidents have occurred.

A: The King Street 2 Project (road diet from Radford to Janney's Lane) was implemented and fully operational in September of 2016. Between this time and August of 2017, there was one crash in February of 2017 with no injuries. The corridor remained crash-free between March until September of 2017, after which, there were 4 total crashes, 2 of which resulted in injuries. These crash numbers may differ over time because the TREDS crash recordkeeping system is constantly being updated. Known reasons for changes in data include crashes that have gone through litigation are closed and can be published in the system, or data is refined and updated to be more accurate with its location.

According to our Vision Zero data analysis and relative to other City-owned streets (non-interstate), Seminary Road is one of our highest crash corridors. It has a crash history of daylight crashes that were mostly rear-ends, angle (turning), and sideswipes in the same direction. The following, for our study area is true according to TREDS data (Virginia State DMV) as of July 2018: 33 crashes in 2015 (13 involved some kind of injury); 25 in 2016 (11 injury); 22 in 2017 (6 injury). Anyone can review this dataset by visiting https://www.treds.virginia.gov/Mapping/Map/CrashesByJurisdiction to see the actual numbers.

While the speed limit reduction helped reduce injury crashes on Seminary Road, speeds and general number of crashes have stayed consistent. Virginia roads include interstates (such as the Beltway), other divided highways, outer suburbs, and other types of roads that have far worse safety records, and shading in the TREDS map for Seminary shows its safety relative to a statewide population. Seminary Road has been judged to be a high-crash corridor worthy of study due to its safety record relative to all streets within the borders of, and operated by, the City of Alexandria, which has a Council-adopted goal to eliminate fatalities and serious injuries from City streets by 2028.

Has a study been done of causes of crashes on Seminary?

A: Yes, we have looked at the crashes between 2010 and 2017. According to our Vision Zero data analysis relative to other City-owned streets (non-interstate), Seminary Road is one of our highest crash corridors. It has a crash history of daylight crashes that were mostly rear-ends, angle (turning), and sideswipes in the same direction. The following is from TREDS data (Virginia State DMV): 33 crashes in 2015 (13 involved some kind of injury); 25 in 2016 (11 injury); 22 in 2017 (6 injury). While the speed limit reduction helped reduce injury crashes, speeds and general number of crashes have stayed consistent.

What was the decrease in volume on King? Where did the traffic go?

According to VDOT data estimates, there was no significant change to the volumes on King Street. The data can be <u>viewed here</u> but is summarized in the table below:

	Segn	nent	Average Annual Daily Traffic										
Street	Begin	End	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007
King St	I-395	Braddock Rd	22000	22000	22000	24000	25000	24000	22000	22000	22000	20000	21000
King St	Braddock Rd	Russell Rd	13000	13000	13000	14000	15000	14000	13000	13000	13000	13000	13000
Seminary Rd	I-395	Quaker Lane	16000	16000	16000	15000	15000	16000	16000	16000	16000	18000	16000

Why was the study stopped at Kenmore? Why not further west?

The project area stops at Kenmore because this is the area that is set for repaving. According to the City's complete streets policy, we are tasked with reviewing street and safety improvements to each roadway that is up for repaving to determine ways to make for safer and more convenient infrastructure for all people walking, biking, driving, and taking transit on our streets.

Is there a plan to remove the bike lane on Braddock if this is installed?

There is no plan to remove the shared bike markings on Braddock road if bike facilities are installed on Seminary Road. As part of the recent update to the Pedestrian and Bicycle Chapter of our Transportation Master Plan, bicycle facilities are recommended for both roads, in order to help build a citywide network. For each recommendation, we investigate the feasibility of specific types of facilities on a corridor-by-corridor basis.

How many design treatments would result in Seminary being reduced to one lane in each direction?

There are a number of design options that we can come up with, some with a lane reduction, some without. We will be exploring the possibilities and presenting those at the next public event, and also show options that we ruled out and give reasoning behind each.

Are there other opportunities to do things beyond what is shown in presentation boards?

Yes, we welcome ideas for roadway improvements beyond the options shown on the boards. We hope people will contact City staff directly to propose them.

How can a decision be made without considering where the traffic might go?

We will look at where traffic might go if we propose a design where it would be likely that the proposed new configuration would cause drivers to divert from their current routes.

Am I correct in that no decisions are being made tonight?

Yes, that is correct. We want to hear what issues residents have and then will come up with design solutions to meet those issues packaged as concepts for the next public event. No decisions are expected to be made until the Fall.

What is the timetable? When does the road get paved?

We hope to have a decision with input from the community by September so that the road can be repaved and we can implement short-term recommendations in the Fall. This may be pushed to Spring depending on a variety of factors.

How much consideration has been given to the volume of traffic on Seminary as compared to Janney's Lane?

Our analysis will consider how any changes to Seminary Road would impact the intersection with Quaker Lane, including the Janney's Lane approach.

Does the scope of the project include things like sidewalks?

It includes maintaining sidewalks and considering enhanced pedestrian crossings. However, complex additions or revisions may need to be implemented in a short-term condition, in order to allow time and planning to perform more complex engineering.

In reference to pedestrian safety, is there money in Complete Streets as well as grant money? What was in the grant proposal for what might be done at Seminary/Howard?

We have grant money for the intersection of Seminary and Howard, while any changes for the remainder of the corridor will come from Complete Streets funding. Within the Seminary and Howard grant were recommendations to investigate upgrading accessibility through ramps and pedestrian access, improving signals, realigning sidewalks and ramps, investigating the elimination of the exclusive right-turn lane, and revising turning radii to improve safety at this high crash intersection.

In the traffic analysis, how will it account for future occupancy at the BRAC facility?

In our traffic analysis, we will try to estimate a factor to account for possible future traffic increases, due to BRAC or other sources of traffic growth.

One of the issues is getting from the road to destinations along the road. Is outreach to property owners being done and coordination?

We are reaching out to institutions and property owners along the corridor about this study in general, and would reach out to institutions to learn about their unique needs.

Why not invoke private easements to provide sidewalks?

Easements are something we can explore if we do not have room in the public space in the final chosen concept to provide sidewalks. Before exploring these options, we will reach out to and then work with property owners to design a sidewalk that is better suited for people walking along the roadway and meets their needs as well.

Can the pedestrian signal at Howard be adjusted to improve safety?

There are likely improvements that we can make with the signal at Howard. However, these improvements may or may not see an improvement in compliance and safety. The best course of action is to pair design with signal and other improvements. Engineering studies have shown that making intersections safer for people walking makes it safer for other modes as well.

Is the city looking at solutions for pedestrian safety in other locations? (Example given of a crash on Stevenson/Yoakum)

Yes, through our Vision Zero initiative, we are looking at other locations for pedestrian safety with our Year 1 Engineering priorities.

Is the city in contact with broadcasters and is it doing education?

The city is working on safety outreach and doing safety education in a variety of ways, we are working with our Vision Zero coalition partners to plan for this. However, as studies have shown, education takes decades to change behaviors whereas enforcement, engineering, data, and legislation have the most effect on people's behaviors. We are not currently working with television broadcasters but are trying to reach citizens in other ways. As the first year of Vision Zero, we are planning these efforts now and have begun executing them in smaller ways for the first few months.

The Seminary is very interested in solution that serves traffic, bikes, walking and "if we can figure out how to get rid of a brick wall we will do it".

We are excited to work with the Virginia Theological Seminary as part of this process and will coordinate with them as we finalize concepts and determine what the impacts or needs might be beyond the public right of way in the road.

What happens when the concepts are developed?

We will have another public open house to review the concepts and take feedback from residents, as well as develop a survey that we will host on the website and promote through our eNews to gain more feedback from those that could not make the actual event.